

City of Alexandria, Virginia

MEMORANDUM

DATE: APRIL 2, 2014

TO: MEMBERS OF THE TRANSPORTATION COMMISSION

FROM: SANDRA MARKS, ACTING DEPUTY DIRECTOR, T&ES

SUBJECT: AGENDA ITEM #5 – DASH COMPREHENSIVE OPERATIONS ANALYSIS (COA) UPDATE

ISSUE: Update on the DASH Comprehensive Operations Analysis (COA).

RECOMMENDATION: That the Transportation Commission receive the report.

DISCUSSION: The City of Alexandria (the City) and Alexandria Transit Company (ATC) contracted with Transportation Management and Design, Inc. (TMD) in October 2012 to conduct a Comprehensive Operations Analysis (COA) of the DASH bus system. The last complete COA of the DASH bus system was conducted in 2005 with additional onboard data collected in 2008.

Study Purpose

The study includes an evaluation of all existing data and previous studies, collection of a complete set of new data based on current service, and development of unconstrained short and long range recommendations to improve and expand service in the future. The goal of this project is to develop and prioritize short and long range solutions to improve the quality, efficiency, and effectiveness of the ATC network and that would address the following issues:

1. Service frequency
2. Travel times
3. On-time performance
4. Connectivity
5. Productivity
6. Latent demand or underserved areas
7. Overcrowding
8. Underutilized service
9. Planned high capacity transitway improvements

Public Outreach

At its September 9, 2013 meeting, staff gave the Transportation Commission an update

on the civic engagement process. The civic engagement included interviews with stakeholders, an on-board rider survey, a telephone survey, an on-line survey, and two public meetings held on September 11, 2013 (Dr. Oswald Durant Memorial Center) and September 12, 2013 (Landmark Mall). The following provides some of the key information that was received as part of the civic engagement process:

- DASH is well regarded throughout the community
- A majority of respondents indicated that public transportation is important to get people to work, reduce congestion, and improve mobility for low income persons and seniors
- DASH plays a vital role in supporting both local and regional economic development, especially near Metrorail stations
- About 50% of telephone survey respondents were very or somewhat supportive of an increase in taxes to expand DASH service
- DASH bus drivers are very friendly, professional, and punctual
- The top three service improvement needs are: More frequent service on existing routes; real-time bus arrival information; better timed transfers between services

Analysis of the DASH system

As part of the DASH COA, a number of technical reports were prepared, including a Market Analysis report and a Service Evaluation report.

Market Analysis Report – The Market Analysis report provides a comprehensive look at the ATC service area characteristics, and provides insight into existing transit performance by identifying both unmet mobility needs and opportunities to better match transit services to consumer markets. It is used to determine transit demand based on market segmentation, travel patterns and transit competitiveness.

Service Evaluation Report – The Service Evaluation report assesses service performance to inform both policy and planning discussions at a route and network level. It identifies the strengths, weaknesses, and opportunities to support the development of recommendations that enhance mobility and provide financially sustainable service plans. It is largely based on performance data provided by ATC, and the results of the on-board ridecheck conducted in April 2013.

Recommendations

The Market Analysis report and Service Evaluation report were used in developing both short- and long-term recommendations as part of the DASH COA. The short term improvements would be implemented within 5 years (Phase 1), while the longer term improvements would be implemented between 6 and 10 years (Phase 2). Improving frequencies are the primary component of the recommendation plan. They offer strategic plans to key corridors that maximize the greatest use of resources and leverage the largest possible gains in ridership. Most routes should ultimately be improved to 10 minute weekday peak headways in the long term to meet urban frequency levels. Phase 1 improvements would focus on improving frequencies on core routes, such as routes AT1, AT2, AT5 and AT8. Phase 2 improvements would allow for most of the other routes to achieve urban frequency levels.

In addition, new routes and realignments are also recommended to better serve existing markets and to support investments near metrorail stations, and planned developments and investments such as the City's three planned transitways. New routes include circulators in Old Town, Eisenhower East, and the Van Dorn area. A realignment of routes AT2 and AT5, and the AT3/4 in Old Town are required to implement the Old Town Circulator. A realignment of the western portion of Route AT7 is required to implement the Van Dorn circulator. The recommendations, tied to the four design principles identified in the COA, are shown in the table on the next page.

Next Steps

The short and long range plan recommendations will be presented to the DASH Board on April 3, 2014. A public hearing will be held by the DASH Board at its May 8, 2014 meeting as part of the overall Transit Development Plan. The Board will be asked to approve the COA as part of the Transit Development Plan.

DASH COA Recommendations by Phase

| Design Principles | Short Term Recommendation (Phase I) | Long Term Recommendation (Phase II) |
|---|---|---|
| Build on Market Strengths <ul style="list-style-type: none"> - Population / employment growth - Strong support of DASH service - Metrorail/Metrobus presence | <ul style="list-style-type: none"> - Improve weekend frequencies - (AT1, AT2, AT5, AT8, AT9, AT10) - Introduce weekend service for AT3/4 - Rebrand / restructure AT2 & AT5 in Old Town as a circulator - Realign AT3/4 to cover area formerly operated by off-peak AT2 - Implement Eisenhower East, and Van Dorn circulators (restructure AT7) | <ul style="list-style-type: none"> - Additional weekend frequency improvement on AT8 |
| Build on success of current network <ul style="list-style-type: none"> - Support strong corridors - Serve high density trip generators - Integrate with other transit modes | <ul style="list-style-type: none"> - Improve frequency on KST to 10 minutes - Improve peak frequency on AT8 to 10 minutes between Landmark Mall and Van Dorn Metro (Base Pattern) - Improve peak frequency on AT1, AT2, AT3, AT4, AT5, AT6, AT10 to 15 minutes | <ul style="list-style-type: none"> - Improve peak frequency on AT1, AT5, AT6, AT10 to 10 minutes (“urban lifestyle”) |
| Enhance the customer experience <ul style="list-style-type: none"> - Spontaneous use service - Faster travel times - Leverage technology | <ul style="list-style-type: none"> - Enhanced bus shelters and branding as part of new circulators - Industry technology improvements such as AVL and APC bus equipment | <ul style="list-style-type: none"> - Strengthen service in key corridors while improving connectivity between Metrorail, Metrobus and new Transitways. |
| Improve financial sustainability <ul style="list-style-type: none"> - Effectively use resources - Grow ridership - Match service needs to market | <ul style="list-style-type: none"> - Invest in corridors where transit is most productive - Purchase vehicles based on load factor during peak demand, interchangeability, scheduling and on-street characteristics | <ul style="list-style-type: none"> - Purchase vehicles based on load factor during peak demand, interchangeability, scheduling and on-street characteristics - Leverage capital investments into areas that have best opportunity to increase ridership and enhance DASH connectivity |